

# Animal Health Branch News

Volume 07 February 2009

## **Mission Statement**

The Animal Health Branch (AHB) is California's organized, professional veterinary medical unit that protects livestock populations, consumers, and the State's economy from catastrophic animal diseases and other health or agricultural problems.

### **CONTACT INFORMATION**

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## California Bovine TB Update

Bovine tuberculosis (TB) has been a primary focus of the California Department of Food and Agriculture (CDFA) Animal Health Branch throughout 2008. Since January of last year, a total of seven cows have been diagnosed with bovine tuberculosis. These cows originated from three California dairy herds containing approximately 20,000 head. As part of the disease investigation, approximately 377,000 cattle have been TB tested, two herds depopulated, over 8,000 animals depopulated and over \$20 million has been spent. The third affected herd is currently on a test and removal program. Genetic fingerprinting investigations indicate that the strains in these cases had two different sources. However, both are similar to strains identified in TB cases in Southwest feeder cattle.

A new dairy herd in San Bernardino Co., tested as part of the current investigation, contained a cow with a lesion compatible with TB. This herd is quarantined and cattle movements are being investigated while the final culture results are pending.

As a result of these cases, California's TB status, as defined by the U.S. Department of Agriculture (USDA), has been reclassified to Modified Accredited Advanced (MAA). This change in status presents significant challenges for the California cattle industry, as federal regulations require that before a state can regain its "TB Free" status, a waiting period of two years must occur after depopulating the last affected herd, or after the quarantine is released on the last affected herd. During this time, no new positive TB cases can occur.

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# 2009 Foreign Animal Disease Incident Contagious Equine Metritis

On December 15, 2008, the State of Kentucky detected a case of Contagious Equine Metritis (CEM) in a 16-year-old quarter horse stallion on a premises in central Kentucky. The clinically healthy stallion was identified during routine testing for semen export. Although CEM is found in many countries around the world, it is recognized as a Foreign Animal Disease in the U.S. As of February 18, 2009, state officials in 45 states have traced and confirmed the locations of 600 exposed horses - 84 stallions and 530 mares. An exposed horse is one that was bred, either naturally or by artificial insemination, to a horse positive for T. equigenitalis, or one that is otherwise epidemiologically linked to a positive horse, as determined by State and Federal animal health officials. All positive horses, and all exposed horses that have been located, are currently under quarantine or hold order. Testing and treatment protocols are in effect for all traced animals. The epidemiologic investigation is ongoing to determine the source of this outbreak.

Contagious Equine Metritis is a highly contagious, venereal disease of equids caused by the gram-negative

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## **Industry challenges**

California's Modified Accredited Advanced status means that interstate movement of cattle is subject to more strict oversight. Individual states can impose additional requirements beyond the guidelines established by federal regulation. For example, USDA rules exempt feeder cattle from TB testing, but several states require a test or a statement on the Certificate of Veterinary Inspection:

"The animals represented on this certificate are from an area of California that is not epidemiologically or geographically linked to a tuberculosis investigation. These animals have not been commingled with Mexican origin cattle."

The downgrade in status has significantly taxed state and federal TB eradication resources. The California TB Task Force, comprised of both CDFA and USDA personnel, has tested over 250 dairy herds.

Although the TB Eradication Program in the U.S. has been based on sound science, there are concerns that it needs to be modified to be more flexible and that decision-making should be made based on risk assessments. Budgetary cutbacks also dictate that decisions to depopulate large minimal-risk herds will no longer occur. CDFA is committed to disease control and eradication efforts, but it is also important to maintain business continuity for the affected industries.

One recent development that will help minimize the impact of California's downgraded status on both the cattle industry, as well as the state's veterinary resources, is the suspension of TB testing requirements for commuter herds moving between California, Idaho, Nevada and Oregon. The suspension, outlined by the USDA Animal Plant Health Inspection Service (APHIS) in a memo to state veterinarians of these four states, was released

in late November. The suspension is effective for the 12-month period from November 1, 2008 through October 31, 2009 and applies to only these commuter herds. It is still important for veterinarians and cattle producers to confirm specific requirements for cattle moving out of state.

## Meeting the challenge

CDFA Animal Health officials are working cooperatively with industry, private practitioners and USDA officials to improve the TB eradication program, so that the goals of eradicating this disease are met, and the eradication program does not become more burdensome than the actual disease. Moving forward will require an active commitment from all affected interests.

In mid December, the USDA sponsored listening sessions throughout the country to address issues specific to the TB Eradication Program. CDFA Animal Health officials participated in this session and took advantage of the opportunity to communicate to USDA about areas that need to be addressed to advance the goal of eradicating bovine TB and to minimize the impact of low-level occurrences. Specific comments to improve the federal Bovine TB Eradication Program included the following:

- Prohibit importation of at-risk cattle from Mexico and/or restrict their movement within the U.S. and reduce their illegal movement across the border.
- Find ways to reduce "risky behaviors" by industry participants, including raising replacement stock with feeder and exhibition cattle, and congregating, mixing, remixing and moving large numbers of cattle throughout the U.S.
- Base state status on disease prevalence and risk, not simply on number of infected herds.
- Develop and implement an effective serologic test that can identify an infected animal early in the course of disease.
- Educate and monitor USDA Accredited private veterinarians to

- improve testing and response rates for the existing caudal fold test until a new serologic test can be validated and approved.
- Provide adequate funding for investigations, testing and depopulation of animals and herds with evidence of disease transmission.
- Enhance the traceability of cattle and require permanent, individual identification.
- Prevent the transmission of bovine TB from infected wildlife reservoirs to livestock.
- Assess the risks of human transmission of bovine TB to animals and, if warranted, develop standardized mitigation recommendations.

For more information, contact the CDFA Animal Health Branch at (916) 654-1447.

## **Equine Metritis -** Continued

bacteria, Taylorella equigenitalis. Disease transmission occurs during breeding, artificial insemination or by mechanical vectors, and can cause temporary infertility in mares. Clinical disease characteristics make CEM difficult to detect and control. Stallions are asymptomatic for the disease and harbor the organism on the external genitalia for an extended period of time. In mares, an acute infection may cause active inflammation of the endometrium with mucopurulent vulvar discharge 10-14 days post breeding. Infected mares with only mild uterine inflammation are often without clinical signs. Affected mares may fail to establish pregnancy and show a premature return to estrus. Infected mares that do breed may carry a pregnancy to term and produce a subclinical carrier foal; abortions are rare. Asymptomatic mares can be infectious and remain carriers for several months.

Undetected carrier mares and stallions are the source of the bacterium for acute outbreaks. Diagnosis of the carrier state is made by isolation of *Taylorella equigenitalis* from urogenital swabs. *T. equigenitalis* is difficult to isolate due

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to its fastidious nature and slow growth characteristics. Culturing procedures require specific protocols, including the use of transport media for culture swabs with activated charcoal, such as Amies medium, prompt transport of culture swabs in cool conditions to the laboratory, and the collection of multiple culture samples are over a period of one week. Serology may be used as an adjunct test to diagnose CEM antibodies in mares, but is of no use in stallions since they do not develop detectable antibodies to CEM. CEM positive horses can be successfully treated with appropriate antibiotics.

As of February 18, 2009, eleven stallions and three mares in the US are confirmed positive for CEM. Infected stallions are currently located in Kentucky (4), Indiana (3), Texas (1) and Wisconsin (3). Infected mares are located in California (1), Illinois (1) and Wisconsin (1). The positive Wisconsin mare was bred by live cover to a positive Wisconsin stallion in 2009. The positive Illinois and California mares were bred by artificial insemination in 2008 with semen from one of the positive stallions currently located in Indiana and Wisconsin, respectively. The extensive national epidemiologic investigation continues in an effort to identify a source for this outbreak.

CDFA Animal Health Branch (AHB) veterinarians are actively conducting investigations of mares that may have been exposed to an infected stallion through artificial insemination. As of February 18, 2009, 35 exposed mares are under quarantine. AHB veterinarians are working with the USDA-Accredited private veterinarian of horse owners coordinating sample collection and treatment. The USDA testing protocol for CEM investigations requires negative laboratory tests and completion of treatment for release of quarantine.

For more information visit <a href="http://www.aphis.usda.gov/newsroom/hot\_is-sues/cem/index.shtml">http://www.sues/cem/index.shtml</a> or <a href="http://www.cdfa.ca.gov/ahfss/Animal Health/Contagious Equine Metritis.html">http://www.cdfa.ca.gov/ahfss/Animal Health/Contagious Equine Metritis.html</a>

## Livestock Movement 2008

Livestock movement across California's borders represents an important potential for introduction and spread of disease into the state. In 2008, CDFA Pest Exclusion Border Stations recorded 37,076 shipments of 16,147,314 animals of various species into California.

# Livestock & Poultry Entry Through CA Border Stations 2008

Swine	2,705,564
Beef Cattle	777,931
Sheep	523,438
Goats	52,196
Dairy Cattle	33,590
Horses	26,740
Poultry	11,974,305
Hatching Eggs	1,336,775 cases

The Animal Health Branch Permit Section issued 4,633 Livestock Entry Permits to veterinarians from 43 states and two foreign countries for entry of 346,083 animals. Approximately half of these permits were for shipments of cattle. Approximately 206 Pasture-to-Pasture Permits were also issued for the movement of 89,390 head of cattle for seasonal grazing between California and Oregon, Nevada, or Idaho.

# **Equine West Nile Virus Summary California 2008**

In 2008, an increase was seen in the number of horses tested for West Nile Virus (WNV) and the number of confirmed equine WNV cases from those recorded for 2007. Confirmation of the first equine case of 2008 was received on June 16, 2008 and the last case of the year on November 7, 2008. The age range of WNV positive California horses was from six months to 38 years. WNV cases were confirmed in 14 California counties.

# 2008 Summary - California Equine West Nile Virus Cases

Horses Tested Horses Test Negative Horses Test Positive	407 375 32
Cases Death or Euthanasia	17
% Case Fatality Rate	53

For Equine West Nile Virus information visit: <a href="http://www.cdfa.ca.gov/ahfss/Animal Health/wnv info.html">http://www.cdfa.ca.gov/ahfss/Animal Health/wnv info.html</a>

# Noteworthy News...

In January 2009, the federal government announced the allocation of \$4.9 million for the control of cattle tick fever. Boophilus annulatus. The announcement is hailed as a victory for the cattle industry since the control of the fever ticks is desperately needed to address the current infestation in the temporary quarantine zones in Texas. More than 1 million acres in South Texas are currently under temporary preventive quarantines in addition to the half million acres in the permanent guarantine zone. These quarantines impact more than 100 ranches. Texas officials will use the funding for additional personnel, equipment and supplies to treat cows affected by the ticks. Failure to eradicate the fever tick in south Texas could lead to further spread of the pest. Potential losses to the beef industry due to spread throughout the nation's cattle herds are estimated in excess of \$1 billion.

The American Association of Equine Practitioners (AAEP) issued guidelines for protecting the health of the Thoroughbred racehorse on February 16, 2009. "Putting The Horse First: Veterinary Recommendations for the Safety and Welfare of the Thoroughbred Racehorse" is a white paper with veterinary guidance on issues facing the racing industry and the care of the racehorse. The four key areas of focus are the racing business model, the veterinarian-owner-trainer relationship,

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## **Staff Biographies**



Victor Velez is a native of Columbia, South America. He received a BS in Animal Science (1984) and an MS (1996) in Agriculture from the California State Polytechnic University - Pomona. Victor began his diverse career with CDFA in 1986 working in disease eradication programs in Southern California for seven years. He moved to Sacramento to lead the development of an integrated disease management information system. Victor has served as a CDFA representative to the United States-Mexico Border Governors' Conference and as liaison to the United States-Mexico-Canada Agricultural Tri-Accord. Currently, Victor is the Animal Health Branch Administrative Programs Section Lead and is the coordinator of the California Animal Identification Program.

Victor resides in Davis, California with his wife, Jeannette. He is the proud father of two college students, Justin and Sarah. In his spare time he enjoys reading, playing and coaching soccer and participating in other outdoor activities.



**Dr. Katie Flynn** was raised on a Standardbred racehorse / Hereford cow-calf farm in South Grafton, Massachusetts. She received a BS in Animal Science from the University of Massachusetts in 1995 and a BVMS degree from the University of Glasgow in 2001. As a Senior Veterinary student, she was mobilized to assist

the Ministry of Agriculture, Fisheries and Food (MAFF) in the 2001 Foot and Mouth Disease outbreak gaining invaluable first-hand experience with this highly contagious disease. Dr. Flynn joined CDFA in 2002 to pursue her interest in foreign animal disease prevention and outreach. During her time with CDFA, Dr. Flynn has been engaged in bovine TB testing and epidemiologic investigations, Equine West Nile Virus surveillance, Foreign Animal Disease training, outreach and education. Dr. Flynn became the Animal Health Branch Equine Program Lead in 2008.

Noteworthy News - Continued

medication, and the public perception of racing. The white paper is available on the AAEP website (<a href="http://www.aaep.org/">http://www.aaep.org/</a>)

The National Institute of Animal Agriculture annual meeting is scheduled for March 30 – April 2, 2009 in Louisville, KY. The theme of the 2009 meeting is timely, "The Changing Face of Animal Agriculture". Public perception of animal agriculture is in flux and key issues impacting animal agriculture will be addressed.